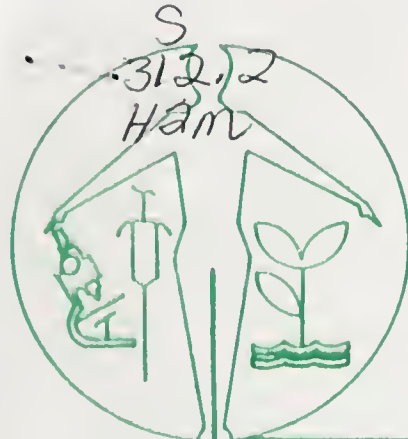




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SHIELVED WITH
PERIODICALS!



STATE OF MONTANA
Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

Disease	This Month January			Reported to Date		
	1977	1976	1975	1977	1976	1975
Aseptic Meningitis	0	1	1	0	1	1
Brucellosis	0	0	0	0	0	0
Chicken Pox	57	80	109	57	80	109
Colorado Tick Fever	0	0	0	0	0	0
Encephalitis, Primary	0	1	3	0	1	3
Encephalitis, Post-Infectious	0	0	0	0	0	0
Hepatitis, Infectious (A)	18	20	19	18	20	19
Hepatitis, Serum (B)	0	2	3	0	2	3
Hepatitis, Unspecified	3	1	3	3	1	3
Influenza-Like Disease	104	235	1446	104	235	1446
Measles (Rubeola)	83	15	0	83	15	0
Meningococcal Disease	0	0	0	0	0	0
Mumps	0	0	0	0	0	0
Rocky Mountain Spotted Fever	0	0	0	0	0	0
Rubella	3	0	1	3	0	1
Salmonella Infections	2	0	5	2	0	5
Shigella Infections	1	14	10	1	14	10
Streptococcal Pharyngitis	300	300	459	300	300	459
Tuberculosis (New Cases)	1	0	3	1	0	3
Venereal Disease						
Gonorrhea	179	180	207	179	180	207
Syphilis, Prim. & Sec.	0	1	2	0	1	2
Whooping Cough Syndrome	0	2	0	0	2	0
Rabies in Animals	3	6	1	3	6	1

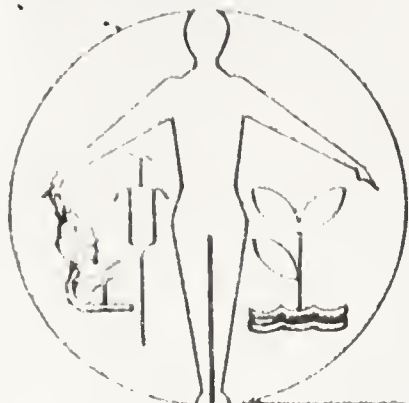
OTHER REPORTABLE DISEASES:

Infectious Mononucleosis	3	0	0	3	0	0
Rheumatic Fever	0	0	1	0	0	1
Meningitis, Other Bacterial	0	0	1	0	0	1
Encephalitis, Unspecified	0	0	1	0	0	1

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COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scar. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn				8			2					11				
Blaine				2								43	1		1	
Broodwater																
Carbon																
Carter					1											
Cascade		22		24	9		2	21				128				
Chouteau		8					80									
Custer				2								10				
Daniels																
Dowson								2								
Deer Lodge							8									
Fallon																
Fergus				3												
Flothead				8												
Gallatin				3			1									
Garfield																
Glozier				14	1			6				41				
Golden Valley																
Granite																
Hill				3								11				2
Jefferson				1												
Judith Basin																
Lake				6				16								
Lewis & Clark		17		18	2			9			3	2				
Liberty							2					5		1		
Lincoln								18								
McCone																
Madison																
Meagher																
Mineral																
Missoula				31	4		1					3	1			
Musselshell								4								
Park																
Petroleum																
Phillips																
Pondera				1	1											
Powder River		10					4									
Powell												13				
Prairie																
Ravalli				2												
Richland																1
Roosevelt				11			1									
Rosebud				5												
Sanders																
Sheridan				1												
Silver Bow				6			1									
Stillwater				1												
Sweet Grass																
Teton												8				
Toole				1												
Treasure																
Valley				1								25				
Wheatland																
Wibaux								2								
Yellowstone				27			2	5								
TOTAL	0	57	0	179	18	0	104	83	0	0	3	300	2	1	1	3



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ACTING DIRECTOR

Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

Disease	This Month February			Reported to Date		
	1977	1976	1975	1977	1976	1975
Aseptic Meningitis	0	0	0	0	1	1
Brucellosis	0	0	0	0	0	0
Chicken Pox	58	38	79	115	118	188
Colorado Tick Fever	0	0	0	0	0	0
Encephalitis, Primary	0	0	1	0	1	4
Encephalitis, Post-Infectious	0	0	0	0	0	0
Hepatitis, Infectious (A)	2	8	25	20	28	44
Hepatitis, Serum (B)	1	1	6	1	3	9
Hepatitis, Unspecified	7	2	2	10	3	5
Influenza-Like Disease	115	207	12	219	519	51
Measles (Rubeola)	195	25	0	278	40	0
Meningococcal Disease	0	1	1	0	1	1
Mumps	1	2	2	1	2	2
Rocky Mountain Spotted Fever	0	0	0	0	0	0
Rubella	1	10	78	4	10	79
Salmonella Infections	2	3	7	4	3	12
Shigella Infections	0	5	4	1	19	14
Streptococcal Pharyngitis	352	112	172	652	578	993
Tuberculosis (New Cases)	2	9	4	3	9	7
Venereal Disease						
Gonorrhea	127	152	161	306	332	368
Syphilis, Prim. & Sec.	0	2	1	0	3	3
Whooping Cough Syndrome	1	0	1	1	2	1
Rabies in Animals	0	3	5	3	9	6

OTHER REPORTABLE DISEASES:

Infectious Mononucleosis	0	0	0	3	0	0
Encephalitis, Unspecified	0	0	0	0	0	1
Rheumatic Fever	0	0	0	0	0	1
Meningitis, Other Bacterial	0	0	0	0	0	1
Tularemia	0	0	0	1	1	0

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COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	Streptococ- cal fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		3					3					17			1	
Blaine				1								60				
Broodwater						1		1								
Carbon		4		2			29					24				
Carter																
Cascade		30		7				10		1		21				
Chouteau							51									
Custer				4								42				
Daniels								28								
Dawson		1					8									
Deer Lodge				1												
Fallon							1									
Fergus				2									1			
Flothead				9				64								
Gallatin		2		12			5					77				
Garfield																
Glacier				7	1							26				
Golden Valley																
Gronite																
Hill												6				
Jefferson																
Judith Basin																
Lake				3				7				13				
Lewis & Clark		9		10												
Liberty							8					6				
Lincoln		4						64								
McCone								1								
Modoc																
Moagher																
Mineral																
Missoula				27				1			1	4				
Musselshell								2								
Park															1	
Petroleum																
Phillips																
Pondera																
Powder River																
Powell				2								21				
Prairie																
Ravalli				1								1				
Richland																
Roosevelt				6												
Rosebud		2														
Sanders																
Sheridan				1												
Silver Bow				1												
Stillwater		3														
Sweet Grass																
Teton					1		10	2				4				
Toole																
Treasure																
Valley				4								30				
Wheatland																
Wibaux																
Yellowstone				27				15					1			
TOTAL	0	58	0	127	2	1	115	195	0	1	1	352	2	0	2	0



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Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

EPIDEMIOLOGIC NOTES AND COMMENTS 'THE TICK TELEGRAPH' JANUARY AND FEBRUARY, 1977

INFLUENZA

Epidemic influenza has appeared in Montana. Over the past several weeks, 3 diagnostic rising titres to influenza B have been submitted by physicians in Havre. This coincides with an outbreak of respiratory illness in the community. Viral cultures were not submitted from this outbreak, so no virus has been isolated. Respiratory illness has also been reported in Billings and Scobey but viral cultures are still pending. Laboratory tests have failed to demonstrate evidence of influenza in other outbreaks of respiratory illness in the state.

Recent national data show outbreaks of influenza B in Arkansas and New Mexico as well as sporadic cases of influenza B in Alabama, Florida, Massachusetts, New York and Wisconsin. Sporadic cases of influenza A have occurred in Florida, Arizona, New York, Texas, North Carolina and South Carolina. An outbreak of Influenza A/Victoria has recently occurred on a military installation in Colorado.

MYOSITIS

The Pennsylvania State Health Department has reported seven cases of myositis following influenza-like illness in children. The cases have occurred primarily in kindergarten and elementary school children. In one family both parents and one child had myositis. Typical presentations were severe leg pain, objective muscle tenderness, but no neurologic findings, several days following onset of an influenza-like illness occurring in an epidemic setting. While myalgia is a common symptom of influenza illness, myositis is much less common. It has been most frequently reported following Influenza B infection in children.

Source MMWR February 25, 1977.

REYE'S SYNDROME

With Influenza B activity occurring nationwide, it is reasonable to expect that Influenza B will be occurring in Montana. Reye's Syndrome has been associated with many viruses, but the strongest association is with Influenza B. For example, in the 1973-74 outbreak of Influenza B the majority of 379 cases reported to the CDC were geographically and temporally associated with the major outbreaks of Influenza B. Reye's syndrome is characterized by the acute onset of fever, vomiting, and encephalopathy in the convalescent phase of an apparent viral illness. Diagnostic criteria include a non-inflammatory encephalopathy together with fatty change of the liver (histological examination) or elevated hepatic transaminases in the absence of any other explanation for the neurologic and hepatic abnormalities.

Although Reye's Syndrome is not a reportable disease, we would encourage reporting of the disease to the state health department so that we may determine the magnitude of the problem in the state.

ARSENIC IN ANACONDA

The results of a study conducted in October, 1975 by the Montana Department of Health and Environmental Sciences in cooperation with the Center for Disease Control have been released. They show higher levels of arsenic were present in children living in Anaconda when they were compared to children living in three control towns. The children had normal lead, cadmium, copper and zinc levels when compared to controls. Eighty-eight per cent of children had elevated urinary arsenic while 100% had elevated hair arsenic. The urinary arsenic levels were about 3 times that of controls while the hair arsenic levels were about 27 times that of controls. These levels are not high enough to represent arsenic poisoning, but the question remains as to whether or not they represent a health hazard to the children. In April, we plan to conduct a study of the children living in Anaconda and compare urinary levels with neurologic, hematologic, and dermatologic findings. The Environmental Protection Agency will conduct further testing during the summer to pinpoint the source of the arsenic.

TICKS

With the coming of spring, the tick season is on us once again and a brief reminder about tick borne disease is in order. Rocky Mountain Spotted Fever and Colorado Tick Fever are, of course, the most prominent tick borne diseases in Montana.

Prevention of these diseases rests on the prevention of tick bites. Immunization of our Rocky Mountain Fever, while important before the advent of effective antibiotic therapy, plays a minor role in prevention. The immunization, because of weak antigenicity, merely lessens the severity of disease, and does not prevent it. Yearly booster doses are also required. Accordingly, its use is restricted to high risk persons.

Tick repellants are of some usefulness in preventing tick bites, but tick hygiene plays the most important role. When entering tick infected areas, as much of the body as possible must be covered, and the caudal layer of clothes must be worn over the more cephalad (i.e. pants tucked into socks, shirt into pants) so that ticks cannot crawl under clothes. The entire body must be searched for ticks by another person at least daily, preferably, two or three times a day. If a tick is found and is not attached, there is no cause for concern. If the tick is attached, it should be removed by gentle traction to avoid breaking off mouth parts and leaving them embedded in the skin. Care must be exercised to avoid crushing the tick and the hands should be protected while removing the tick. The tick can be submitted live to Doctor Willi Burgdorfer at the Rocky Mountain Laboratory in Hamilton or the State Laboratory in Helena for examination by the hemolymph test to determine if rickettsiae are present in the tick. If the tick is positive or could not be examined, then the bitten person should be in daily contact with his physician for two weeks after the bite. At the first sign of fever, antibiotic therapy is begun.

Antibiotic therapy is not begun immediately after a tick bite because even in endemic areas like the Bitterroot Valley only 10% of ticks will be infected with rickettsiae. Even if bitten, prompt removal can prevent infection because several hours of attachment are necessary before the rickettsiae become reactivated and infection can occur in man.

Serologic tests for the diagnosis of Rocky Mountain Spotted Fever and Colorado Tick Fever are available through the State Laboratory. Both acute and convalescent sera taken two weeks apart should be submitted. Colorado Tick Fever virus isolation can also be done by the State Laboratory with 10cc of clotted whole blood.

IMMUNIZATION ACTION MONTH

April 7, 1977, is World Health Day, and the World Health Organization has declared that the theme of that day, that week, and the year (1977) will be Immunization. Accordingly, Montana's Immunization Task Force has designated April as Immunization Action Month (IAM) for 1977.

IAM campaigns have proven to be effective, nationally and in Montana. The 9,535 total immunizations given in Montana through the public sector during our last IAM campaign (October, 1975) was more than four times greater than the number given during the previous October, when only a token IAM effort was made.

Efforts are underway to promote the need for childhood immunizations through the media and various publications. Your cooperation in determining the immunization status of your patients and promoting childhood immunizations will be we feel, productive and greatly appreciated. If you would like a quantity of "Patient Immunization Audit" cards and/or immunization pamphlets, please contact either Rick Crankshaw or Doris House (Toll Free Number - 1-800-332-2288).

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State Department of Health and
Environmental Sciences
Preventive Health Services Bureau
Cogswell Building - 0340
Helena, Montana 59601

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Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

This Month March, 1977 Reported to Date

Disease	1977	1976	1975	1977	1976	1975
Aseptic Meningitis	0	0	0	0	1	1
Brucellosis	0	0	0	0	0	0
Chicken Pox	102	147	188	217	265	376
Colorado Tick Fever	0	0	0	0	0	0
Encephalitis, Primary	0	0	0	1	1	4
Encephalitis, Post-Infectious	0	0	1	0	0	1
Hepatitis, Infectious (A)	6	6	23	26	34	67
Hepatitis, Serum (B)	0	1	1	1	4	10
Hepatitis, Unspecified	1	3	4	11	6	9
Influenza-Like Disease	147	3569	367	366	4088	2406
Measles (Rubeola)	225	32	2	537	72	2
Meningococcal Disease	2	0	0	2	2	1
Mumps	2	4	1	2	6	3
Rocky Mountain Spotted Fever	0	0	0	0	0	0
Rubella	2	114	04	6	124	173
Salmonella Infections	0	8	2	4	11	14
Shigella Infections	0	1	9	1	20	23
Streptococcal Pharyngitis	413	487	517	1065	1065	1510
Tuberculosis (New Cases)	0	2	3	3	11	10
Venereal Disease						
Gonorrhea	165	155	165	471	487	533
Syphilis, Prim. & Sec.	0	1	0	0	4	3
Whooping Cough Syndrome	0	0	0	1	2	1
Rabies in Animals	7	11	2	10	20	2

OTHER REPORTABLE DISEASES:

Infectious Mononucleosis	2	0	0	5	0	0
Encephalitis, Unspecified	0	0	0	0	0	1
Cholera	0	0	0	0	0	1
Meningitis, Other Bacterial	3	0	0	3	0	1
Tularemia	0	0	0	1	0	0
Botulism	0	1	0	0	1	0
Toxoplasmosis	0	1	0	0	1	0

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COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scar. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		6		12			4	2				23				
Blaine		13		1								49				1
Broodwater							30									
Carbon		1		1				9				3				
Carter																2
Cascade		33		28	4		4	6		1		47				
Chouteau							40					2				
Custer		13		6			1					74				
Daniels								5								1
Dowson									1							
Deer Lodge							2					20				
Fallon		5														
Fergus																
Flothead				4				21				10				
Gallatin				5			37					71				
Gorfield																
Glacier				4	2							24				
Golden Valley																
Granite																
Hill				4			2									
Jefferson																
Judith Basin																
Lake		3		5								29				
Lewis & Clark		10		6				2								
Liberty							12					8				
Lincoln		8						93				2				
McCone																1
Madison																
Meagher																
Mineral				4												
Missoula				25				36			2	2				
Musselshell																
Park																
Petroleum																
Phillips																
Pondera									1							
Powder River								1								
Powell												23				
Prairie																
Ravalli				1												
Richland																1
Roosevelt				4												
Rosebud		8		10				9				4				
Sanders																
Sheridan		1						5								1
Silver Bow				10												
Stillwater				1			15	1								
Sweet Grass																
Teton												6				
Toole																
Treasure																
Volley												16				
Wheatland																
Wibaux																
Yellowstone		1		34				35								
TOTAL	0	102	0	165	6	0	147	225	2	1	2	413	0	0	0	7



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Department of Health and Environmental Sciences STATE OF MONTANA HELENA, MONTANA 59601

EPIDEMIOLOGIC NOTES AND COMMENTS 'THE TICK TELEGRAPH'

MARCH, 1977

MENINGITIS

After a quiet winter with 0 reported cases of bacterial meningitis, there have been four cases of meningococcal meningitis and three cases of hemophilus influenza meningitis reported within the past two months. There has been no apparent common source and all have recovered. One meningococcal case was extremely interesting in that the child was less than two months old.

Household contacts of patients with sporadic meningococcal septicemia or meningitis have a short-term risk of acquiring the disease approximately 1000-fold higher than the general population. Agents such as penicillin and ampicillin, although highly effective in the treatment of meningococcal infection, are ineffective in eradicating the nasopharyngeal carrier state and are thus ineffective in preventing meningococcal disease. Although there has been some dissent, the weight of medical opinion favors utilization of prophylactic measures to prevent spread of infection among family contacts.

WHO SHOULD RECEIVE PROPHYLAXIS - In the sporadic cases of meningococcal infection, all household contacts and others having close, intimate contact with the patient prior to the onset of illness should receive chemoprophylaxis. Schoolroom classmates and hospital contacts do not require prophylaxis, except under rare circumstances of unusual contact. In an epidemic setting, these recommendations can be liberalized.

CHEMOPHYLAXIS - In recent years, a significant proportion of meningococci have become resistant to sulfonamides, limiting the usefulness of these agents for chemoprophylaxis. Minocycline, a tetracycline derivative, has been shown 85-90% effective in eradicating the nasopharyngeal carrier state. Unfortunately, a high incidence of vestibular reactions in individuals receiving prophylaxis with this drug contraindicates its use for this purpose at the present time. Rifampin is presently the drug of choice for chemoprophylaxis of meningococcal disease. This drug has been shown approximately 90% effective in eradicating nasopharyngeal carriage of meningococci. However, meningococci and other organisms can develop rapid 1-step resistance to Rifampin. Therefore, indiscriminate use of this drug could result in increasing numbers of resistant organisms, limiting its usefulness as a prophylactic agent. This has not been recognized as a problem when Rifampin has been used for short term meningococcal chemoprophylaxis in open populations. In most studies, adverse side effects from Rifampin prophylaxis have been unusual. However, symptoms such as nausea, headache, dizziness, vomiting, and fatigue have been reported following meningococcal prophylaxis with rifampin. The dosage schedule recommended for Rifampin is as follows: ADULTS: 600 mg every 12 hours for 4 doses, CHILDREN <1 year: 5 mg/kg every 12 hours for 4 doses.

VACCINE - Polysaccharide vaccines effective against meningococcal serotypes A and C are now licensed in the U.S. and are available either in monovalent or bivalent form. After administration, approximately 5 days are required for adequate antibody response to develop. Since about half the secondary cases of meningococcal disease in household contacts occur more than 5 days after the primary case, vaccination may be protective if the etiologic meningococcus is of serotype A or C. Vaccination is therefore protective if the etiologic meningococcus is of serotype A or C. Vaccination is therefore recommended by some as an adjunct to chemoprophylaxis for the prevention of meningococcal disease. It should be noted, however, that the effectiveness of this approach has not been established, and that vaccine prophylaxis may add little or no measurable protection over that gained by prompt Rifampin prophylaxis.

From California Morbidity, April 15, 1977

In a survey reported from Queensland, Australia* What Patients Know About Antibiotics, a surprising percentage of nurses and parents had misinformation about antibiotic use and indications. The investigators surveyed 20 nurses working at a children's hospital and 103 parents who brought their children to a hospital emergency room or private pediatrician. Of the parents, 13% thought antibiotics were merely a stronger form of aspirin, 55% said antibiotics killed viruses, and 75% thought antibiotics should be used routinely for colds and influenza. Most thought that antibiotics could be harmful, but believed this resulted from too much or too many antibiotics. Of the nurses, 35% believed antibiotics killed viruses and 45% thought they should be used routinely for colds and influenza.

Much of this information and confusion probably results from doctors diagnosing "viral infection" and then prescribing an antibiotic anyway; the spontaneous improvement that follows then enforces the idea of "benefit" from such antibiotic use and creates a demand for antibiotics by patients in subsequent episodes. The indications, actions, and possible side-effects of antibiotics should be explained to patients and should also be better appreciated by the medical community at large.

From California Morbidity April 8, 1977

BOTULISM

The largest outbreak of botulism ever reported in the United States has recently been investigated in Pontiac, Michigan. The Michigan State Department of Public Health learned on March 31, 1977 that two employees of a Pontiac Hospital had been admitted to the hospital with signs and symptoms compatible with botulism. Within a day, twelve additional patients had been identified with probable botulism. All fourteen patients had eaten at a Mexican restaurant near the hospital, and the only food item eaten by all was a hot sauce prepared with red tomato sauce and home-canned green peppers. Samples of stools from ill persons and samples of the peppers were found to contain Type B botulinal toxin. Thirty-nine persons were eventually identified with neurological signs compatible with botulism. No deaths occurred. All but one of the patients were residents of Michigan.

Source - MMWR April 8, 1977

Botulism in the United States is almost exclusively due to home canning (with the exception of Alaska where home putrification of Eskimos delicacies predominates). Prevention of botulism is through education of home canners regarding the need to sterilize canning equipment under pressure and to caution consumers of home canned food that low acid foods should be thoroughly boiled for three minutes with stirring prior to consumption.

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Preventive Health Services Bureau
Cogswell Building - 0340
Helena, Montana 59601

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Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

Disease	This Month May, 1977			Reported to Date		
	1976	1975	1974	1976	1975	1974
Aseptic Meningitis	1	1	0	1	2	2
Brucellosis	0	0	0	0	0	0
Chicken Pox	51	100	133	441	700	620
Colorado Tick Fever	1	7	1	1	8	1
Encephalitis, Primary	0	0	0	0	1	5
Encephalitis, Post-Infectious	0	0	0	0	0	1
Hepatitis, Infectious (A)	9	1	15	52	36	98
Hepatitis, Serum (B)	1	2	1	8	9	13
Hepatitis, Unspecified	6	2	7	15	9	25
Influenza-Like Disease	123	131	109	679	4824	2634
Measles (Rubeola)	85	31	11	967	183	34
Meningococcal Disease	0	1	3	2	2	5
Mumps	1	2	5	3	11	10
Rocky Mountain Spotted Fever	1	0	0	1	0	0
Rubella	4	27	27	11	221	238
Salmonella Infections	4	10	3	14	33	24
Shigella Infections	1	3	6	3	25	37
Streptococcal Pharyngitis	358	194	361	1808	1584	2267
Tuberculosis (New Cases)	2	3	3	13	20	16
Venereal Disease						
Gonorrhea	117	163	146	735	797	871
Syphilis, Prim. & Sec.	0	0	1	0	4	4
Whooping Cough Syndrome	0	0	0	0	0	0
Rabies in Animals	8	15	40	18	49	65

OTHER REPORTABLE DISEASES:

Botulism	0	0	0	0	1	0
Encephalitis, Unspecified	0	0	0	0	0	1
Infectious Mononucleosis	1	5	0	7	5	0
Meningitis, Other Bacterial	1	0	0	9	0	1
Rheumatic Fever	0	0	0	1	0	1
Tularemia	0	0	0	1	0	0
Toxoplasmosis	0	0	0	0	0	0
Salmonella, Non-Infectious	0	1	0	0	1	0

I

COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarlat. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		11		1			4					8	1			
Blaine		3														
Broadwater																
Carbon							16	5				2				
Carter																
Cascade	1	14		14	3					1			1		1	
Chouteau							80									
Custer				5												
Daniels																
Dawson																1
Deer Lodge				1			17									
Fallon		3														
Fergus																
Flothead				3				7			1				1	
Gallatin		7		3			6									
Garfield																
Glacier		2		7	3	1		1				17				
Golden Valley																
Granite																
Hill													1			
Jefferson				1												
Judith Basin																4
Lake				2												
Lewis & Clark		7		6				6			1					
Liberty																
Lincoln		4		2												
McCone																2
Madison																
Meagher																
Mineral																
Missoula				21	2			11			1	20		1		
Musselshell																
Park																
Petroleum																
Phillips																
Pondera																
Powder River																
Powell																
Prairie																
Ravalli								18								
Richland																
Roosevelt																
Rosebud				13										1		
Sanders																
Sheridan																
Silver Bow				6												
Stillwater																
Sweet Grass																
Teton								5								
Toole																
Treasure																
Valley											1	1				
Wheatland																
Wibaux																1
Yellowstone				32	1			32	0	1	4	48	4	1	2	8
TOTAL	1	51	0	117	9	1	123	85	0	1	4	48	4	1	2	8



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Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

This Month April, 1977 Reported to Date

Disease	1977	1976	1975	1977	1976	1975
Aseptic Meningitis	0	0	1	0	1	2
Brucellosis	0	0	0	0	0	0
Chicken Pox	110	335	111	390	600	487
Colorado Tick Fever	0	1	0	0	1	0
Encephalitis, Primary	0	0	1	0	1	5
Encephalitis, Post-Infectious	0	0	0	0	0	1
Hepatitis, Infectious (A)	4	1	16	43	35	83
Hepatitis, Serum (B)	2	3	2	7	7	12
Hepatitis, Unspecified	1	1	9	9	7	18
Influenza-Like Disease	136	605	119	556	4693	2525
Measles (Rubeola)	239	80	23	882	152	23
Meningococcal Disease	0	0	1	2	1	2
Mumps	0	3	2	2	9	5
Rocky Mountain Spotted Fever	0	0	0	0	0	0
Rubella	0	70	38	7	194	211
Salmonella Infections	4	12	7	10	23	21
Shigella Infections	1	2	8	2	22	31
Streptococcal Pharyngitis	354	325	396	1450	1390	1906
Tuberculosis (New Cases)	4	6	3	11	17	13
Venereal Disease						
Gonorrhea	147	147	192	618	634	725
Syphilis, Prim. & Sec.	0	0	0	0	4	3
Whooping Cough Syndrome	0	0	0	0	0	0
Rabies in Animals	0	14	17	10	34	25

OTHER REPORTABLE DISEASES:

Botulism	0	0	0	0	0	0
Encephalitis, Unspecified	0	0	0	0	0	1
Infectious Mononucleosis	1	0	0	6	0	0
Meningitis, Other Bacterial	4	0	0	8	0	1
Rheumatic Fever	1	0	0	1	0	1
Tularemia	1	0	0	1	0	0
Toxoplasmosis	0	0	0	0	1	0

H COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarl. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		11		1			4					8	1			
Bloaine		3														
Broodwater																
Carbon							16	5				2				
Carter																
Cascade	1	14		14	3					1			1		1	
Chouteau							80									
Custer				5												
Daniels																
Dawson																1
Deer Lodge				1			17									
Fallon		3														
Fergus																
Flathead				3				7			1				1	
Gallatin		7		3			6									
Garfield																
Glacier		2		7	3	1		1				17				
Golden Valley																
Granite																
Hill													1			
Jefferson				1												
Judith Basin																4
Lake				2												
Lewis & Clark		7		6				6			1					
Liberty																
Lincoln		4		2												
McCone																2
Madison																
Meagher																
Mineral												20				
Missoula				21	2			11			1		1			
Musselshell																
Park																
Petroleum																
Phillips																
Pondera																
Powder River																
Powell																
Prairie																
Ravalli								18								
Richland																
Roosevelt																
Rosebud				13										1		
Sanders																
Sheridan																
Silver Bow				6												
Stillwater																
Sweet Grass																
Teton								5								
Toole																
Treasure																
Valley											1	1				
Wheatland																
Wibaux																1
Yellowstone				32	1			32								
TOTAL	1	51	0	117	9	1	123	85	0	1	4	48	4	1	2	8



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STATE OF MONTANA HELENA, MONTANA 59601

EPIDEMIOLOGIC NOTES AND COMMENTS 'THE TICK TELEGRAPH'

APRIL, MAY, 1977

*HOW TO WASH YOUR HANDS - ESSENTIAL FOR PREVENTION OF INFECTION

Handwashing between patient contacts is a most important procedure for interruption of hospital cross infection. Hands carry both resident and transient flora. "Resident Flora" are organisms which normally survive and multiply on skin surfaces. Fingernail recesses and skin folds harbor the largest numbers of these generally less virulent organisms. "Transient Flora" do not normally reside on skin surfaces. They are transferred to hands by contact with other patients or contaminated instruments and equipment.

In general, the mechanical, chemical and dilutioned effects of soap and water handwashing remove the bulk of transient flora from skin surfaces. However, the same procedure will not substantially reduce the population of resident flora. Authorities recommend that antiseptic agents be used in place of soap before invasive procedures in order to substantially reduce the number of all bacteria present. Everyone should wash hands with an antiseptic agent between such patient contacts and before entry into infant nurseries.

Prolonged procedures with the greatest risk of transmission of infection, such as surgery or obstetrics, require even greater protection. Gloves are recommended. However, bacteria grow more rapidly on the gloved hand. Thus protection against infections that may be transmitted through damage to the glove during the procedure is necessary. After completion of the required surgical scrub, application of an antiseptic agent having residual effect is required. The same recommendations apply to other invasive procedures in which gloving is ordinarily used, such as bronchoscopy, cardiac catheterization, or needle biopsy. The length of the scrub can be varied in relation to the duration of the procedure to be done.

Various antiseptic agents are available for handwashing but each has certain shortcomings. The "iodophor compounds" are effective but they do not have a residual action. "Hexachlorophene" preparations have a persistent effect for several hours after washing, but they must be used daily for three to five days before their full effectiveness is realized. Further, their action is minimal against gram-negative bacteria. "Chlorhexidine" has only recently been approved as an antiseptic agent. It is said to have both a continuing antibacterial effect and to possess activity against both gram-negative and gram-positive flora. It can, however, become contaminated with gram-negative bacteria.

Although aqueous "benzalkonium chloride" has been known for some time (Zephiran et. al), it is not recommended as an antiseptic handwash because it is readily inactivated by soap and other organic compounds. Furthermore there have been a number of reports of infections carried by contaminated solutions of this substance.

Careful handwashing with soap and warm water is an essential procedure before and after every patient contact, particularly when there is significant skin contact. Particular care must be exercised if excretions, secretions, or blood are handled. Invasive procedures, surgery and care of the newborn require the utmost protection. Use of antiseptic agents and gloves are required depending upon type and length of procedure to be performed.

*From New York State Department of Health Disease Control Newsletter, Feb. 1977

*CDC PARASITIC DISEASE DRUG SERVICE - NEW DRUG FOR AMEBIASIS

The Parasitic Disease Drug Service (PDDS) Parasitic Diseases Division, Bureau of Epidemiology, Center for Disease Control, Atlanta, Georgia, has filed a Notice of Claimed Investigational Exemption for a New Drug (IND) with the Food and Drug Administration to provide physicians practicing in the United States with diloxanide furoate (Furamide) - a safe and effective luminal amebicide.

Diloxanide furoate has been used extensively outside the United States since 1960. It is highly effective in the treatment of asymptomatic or mildly symptomatic patients who are passing cysts of "*Entamoeba histolytica*" and thus fills a void in the armamentarium of amebicidal drugs currently available to American physicians.¹ Both metonidazole (Flagyl) and diiodohydroxyquin (Diodoquin) have been used for this purpose in the past, however, because of the potential toxicity of both drugs, the difficulty in obtaining diiodohydroxyquin, and the low cure rate for asymptomatic cyst passers noted with metromidazole, neither drug has been acceptable for this indication. Diloxanide furoate has not been shown to have any of these drawbacks.

Diloxanide furoate can be obtained by contacting the PDDS by telephone or by letter (see below). The drug should be used only for the therapy of asymptomatic or mildly symptomatic cyst passers and will not be dispensed for the treatment of pregnant women or children under two years of age. Physicians administering the drug will be asked by CDC to fill out a Patient Report Form consisting of clinical and epidemiologic information on their patients. In addition, physicians will be requested to submit a permanently stained slide or a preserved sample of the stool specimen on which the diagnosis of amebiasis was initially made, as well as follow-up stool samples two and four weeks after the completion of therapy. The PDDS will provide vials of stools preservative and mailing tubes with the drug.

In addition to diloxamide furoate, the following drugs continue to be available from the PDDS: PENTOSTAM (Kala-azar and other human forms of leishmaniasis); MEL B (African trypanosomiasis); ASTIBAN and AMBIHAR (Schistosomiasis); DEHYDRO-EMETINE (Severe intestinal amebiasis and amebic liver abscess); SURAMIN (early stages of T. "rhodesiense" sleeping sickness and onchocerciasis); BAYER 2502 (Chagas' disease); BITHIONOL (Paragonimiasis) PENTAMIDINE ISETHIONATE (Pneumocystis carinii pneumonia and early stages of T.gambiense sleeping sickness); NICLOSAMIDE (Taenia saginata, Hymenolepis nana, Diphyllbothrium latum).

Written request for a drug or drug information should be directed to the Parasitic Disease Drug Service, Center for Disease Control, Atlanta Georgia 30333. Telephone requests may be made by calling (404)633-3311. Extension 3496, during daytime hours. Emergency requests for a drug during nights, weekends and holidays may be made by calling (404)633-2176

* From California Morbidity, May 6, 1977.

ERTHEMA INFECTIONOSUM*
(Fifth Disease)

Erythema infectiosum (fifth disease) is an acute benign infectious disease characterized by specific exanthem. Fifth disease, presumably caused by a virus, is most often seen in children two-to-twelve years of age although it has been reported in both infants and adults. It is mildly contagious, probably spreading person to person by respiratory droplets. During outbreaks, commonly seen in winter or spring, up to a third of exposed children under 12 years of age may develop the typical rash. Spread is greatest among family members, schoolmates and other close associates. The period of communicability is uncertain, but most outbreaks subside in one-two months.

The incubation period appears to range from five to fourteen days. A prodrome is usually absent but may consist of one or two days of low-grade fever and mild malaise. The most striking feature of the disease is the rash. It begins as a markedly erythematous, confluent maculopapular eruption over the cheeks, accompanied by some degree of circumoral pallor. The affected area is hot but not painful to the touch, and it has a "slapped-cheek" appearance. In addition, discrete lesions may be present on the forehead and chin, and behind the ears. The eruption on the face generally fades within one to four days.

Approximately one day after onset of the facial rash, a pink maculopapular eruption that tends to coalesce appears on the extensor surfaces of the arms and thighs. Within one to two days, the symmetrically distributed rash spreads to the flexor and distal portions of the extremities, the buttocks, and to a lesser degree to the trunk. As the rash progresses, the earlier lesions on the arms and thighs begin to fade in their centers, giving rise to characteristic irregular, reticular or lacelike pattern. The rash is accentuated by exposure to sunlight and may be sharply demarcated where the arms are covered by sleeves. Occasionally it is associated with mild itching. Several days to weeks (average 10 days) may be required for the rash to fade completely. A characteristic feature is the recurrent and evanescent nature of the rash. After it has faded, it may reappear for varying periods in response to skin irritants such as heat, cold, sunlight, exercise, and trauma. Transient arthralgias and arthritis of the larger joints of the extremities have of the extremities have occasionally been observed preceding or accompanying the rash, chiefly in adults.

Diagnosis of fifth disease is based on the characteristic clinical picture. There are no specific tests and no significant laboratory findings. Differential diagnosis of the initial "slapped-face" phase includes erysipelas, lupus, rubella, and measles; the second, disseminated phase may be confused with rubella, measles, scarlet fever, enterovirus rash, drug eruption, etc.

No treatment is indicated. The disease seems to be innocuous and the prognosis is excellent. Rarely, serious complications such as encephalitis, pneumonitis, and hemolytic anemia have been reported but have not been confirmed.

Isolation is not necessary for children with this disease. In the absence of findings other than the characteristic rash, such children need not be excluded from school.

References:

1. Heoprich, P.D.: Infectious Diseases, first Edition, 1972, pp 877-878.
2. Krugman, S. and Ward, R.: Infectious Disease of Children and Adults, Fifth edition, 1973, pp. 63-64.
3. Lauer, B.A., et al: Erythema Infectiosum, and elementary school outbreak. *Am J Dis Child* 130:252-254, 1976.
4. Balfour, H.H.: Fifth disease: full fathom five. *Am J Dis Child* 130: 239-240, 1976.

*From Indiana C.D. Weekly Summary. March 12, 1977.

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SHELVED WITH
PERIODICALS



Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

June 1977

This Month

Reported to Date

Disease

1977

1976

1975

1977

1976

1975

Disease	1977	1976	1975	1977	1976	1975
Aseptic Meningitis	0	1	0	1	3	2
Brucellosis	1	0	0	1	0	0
Chicken Pox	67	81	91	508	781	661
Colorado Tick Fever	0	7	1	2	15	2
Encephalitis, Primary	0	0	0	0	1	5
Encephalitis, Post-Infectious	0	0	0	0	0	1
Hepatitis, Infectious (A)	3	3	14	60	39	112
Hepatitis, Serum (B)	0	1	2	9	10	15
Hepatitis, Unspecified	0	0	1	17	9	26
Influenza-Like Disease	100	16	61	779	4840	2668
Measles (Rubeola)	57	12	7	1052	195	41
Meningococcal Disease	1	0	1	3	2	6
Mumps	1	2	4	5	13	14
Rocky Mountain Spotted Fever	2	0	1	3	0	1
Rubella	1	9	6	12	230	244
Salmonella Infections	0	6	2	14	39	26
Shigella Infections	2	2	4	5	27	41
Streptococcal Pharyngitis	340	203	261	2148	1787	2447
Tuberculosis (New Cases)	3	8	2	22	28	18
Venereal Disease						
Gonorrhea	122	173	200	889	920	1055
Syphilis, Prim. & Sec.	3	1	0	4	5	4
Whooping Cough Syndrome	0	0	1	0	0	1
Rabies in Animals	10	6	31	28	55	96

OTHER REPORTABLE DISEASES:

Botulism	0	0	0	0	1	0
Encephalitis, Unspecified	0	0	0	0	0	1
Infectious Mononucleosis	0	5	0	7	10	0
Meningitis, Other Bacterial	0	0	1	8	0	2
Rheumatic Fever	0	0	0	1	0	1
Tularemia	0	0	1	1	0	1
Toxoplasmosis	0	0	0	0	0	0
Salmonella, Non-Infectious	1	0	0	1	1	0

Dr. Harry Hull is leaving the Preventive Health Services Bureau. He will be replaced by Dr. Richard Hopkins.

H COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarl. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		7		1								10				
Blaine		4		1								63				1
Broadwater																
Carbon							7				1	6				
Carter																
Cascoda		13		5	1		7	7	1	1		68				
Chouteau							70									
Custer				2												
Daniels							1									1
Dawson				2												1
Deer Lodge							11	1				65				1
Fallon																2
Fergus																
Flathead				7												
Gallatin		11		11								63				
Gorfield																
Glacier				14								13			1	
Golden Valley																
Granite																
Hill				1												
Jefferson				1												
Judith Basin																3
Lake				2												
Lewis & Clark		14		5				3								
Liberty																
Lincoln		7														
McCone																
Madison																
Meagher																
Mineral												6				
Missoula				9	2		7	7					1			
Musselshell																
Park																
Petroleum				1												
Phillips																
Pondera															1	
Powder River																
Powell																
Prairie																
Ravalli				4												
Richland																
Roosevelt		6		7								3				
Rosebud				8												
Sanders																
Sheridan																
Silver Bow				1												
Stillwater		1					1					2				
Sweet Grass								25								
Teton		1						7				10				
Toole																
Treasure																
Volley												25				
Wheatland																
Wibaux																
Yellowstone		3		39			1	7						2	1	1
TOTAL	0	67	0	121	3	0	98	57	1	1	1	334	1	2	3	9



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EPIDEMIOLOGIC NOTES AND COMMENTS 'THE TICK TELEGRAPH'

June 17, 1977

DIAGNOSING TYPHOID FEVER

Typhoid fever is a relatively rare disease in the United States; only a few hundred cases have been reported annually in recent years. For 1976 and 1975 the national totals were 384 and 375 cases, respectively.

Because typhoid fever is so uncommon in the United States, even "characteristic" clinical findings are more likely to be due to other diseases. Thus, without a history of known exposure, a diagnosis of typhoid fever cannot accurately be made solely on the basis of clinical findings. While this concept may be generally understood, the role of agglutination tests apparently causes some confusion.

The Widal reaction, the test for Salmonella H (flagellar) and O (somatic) antigens, is ordinarily part of the battery of "febrile agglutinins" sometimes used as a diagnostic screen in the evaluation of febrile illness. However, the H titer is so non-specific as to be essentially useless. The presence of O antibody may represent prior typhoid vaccination or past or present infection with a variety of Salmonella serotypes, including S. typhi. Thus, a low O titer does not necessarily indicate current or recent Salmonella infection. Because of the lack of standardization of test antigens, and because of significant variability between laboratories, it is difficult even to define a "low" titer. Certainly, a single titer of less than 1:100 is not informative. A 4-fold increase in the O titer (in the same laboratory, using the same test antigen) is suggestive, but not diagnostic of typhoid fever. Such an increase could be due to many Salmonella serotypes. On the other hand, antibiotic treatment may suppress the O antibody response to S. typhi infection.

In summary, then, the agglutination tests used in clinical laboratories are inadequate to diagnose typhoid fever. The O titer is of some limited value in suggesting the diagnosis; a single elevated titer, interpreted in light of clinical findings, past medical and typhoid vaccination history, and the likelihood of exposure to S. typhi, may aid in deciding whether to initiate treatment in a seriously ill person prior to availability of culture results. In no case, however, should agglutination tests substitute for bacterial cultures.

Blood cultures are usually positive for S. typhi during the first 2-3 weeks of illness, less frequently later. Stool cultures usually become positive during the second week, and urine cultures during the second or third week of illness. Bone marrow cultures are particularly useful when the use of antibiotics has made blood, stool, and urine cultures less likely to be positive.

Any clinical bacteriology laboratory should be capable of isolating Salmonella and at least presumptively identifying S. typhi. All Salmonella isolates should be sent to the State public health laboratory for confirmation and serotyping. Serotyping helps document or disprove epidemiologic links between cases. For public health purposes, a reported "case" of typhoid fever is not counted as such unless documented by culture or associated epidemiologically with another culture-proven case.

*From EPIDEMIOLOGIC NOTES & REPORTS - The Commonwealth of Kentucky- March 1977

*ROUNDWORMS INFECTIONS FROM DOGS AND CATS

Visceral larva migrans (VLM) is caused by the larvae of *Toxocara*, the common roundworm of dogs (*Toxocara canis*) and cats (*T. cati*).

VLM usually occurs in young children under 4 years of age who have eaten soil heavily contaminated with toxocara eggs. When these eggs are ingested by humans or other non-specific hosts (i.e., animals other than dogs), the migrating larvae provoke granulomatous inflammatory responses, which in sufficient numbers can result in serious damage to the liver, brain, eye and other organs. The clinical and laboratory findings include mild fever, pneumonitis, hepatomegaly and eosinophilia (often over 50 percent). Complete recovery is usual; but permanent neurological disturbances, blindness and even death have been attributed to toxocara infestation.

The life cycle of *T. canis* depends on the age of the infested animal. Puppies can be infested prenatally by larvae passing through the placenta, or postnatally by ingestion of toxocara larvae or eggs. The larvae penetrate the intestinal wall and reach the liver and other organs through the blood and lymphatic systems. Larvae, which have migrated through the lungs into the bronchioles, may then be coughed up and swallowed. They subsequently establish themselves in the small intestine, where they reach sexual maturity and produce numerous eggs. Eggs can be found in the feces of puppies within 3 weeks after infestation.

Ingestion of eggs or larvae by adult, non-pregnant dogs does not result in tracheal migration. Instead, somatic migration occurs and the larvae lodge in various body tissues when they encyst. When pregnancy occurs, these encysted larvae excyst and are carried by the systemic circulation to the fetal puppies via the placenta.

Prevention of the disease in man is best accomplished by elimination of the parasite in dogs. This can be done by routine, periodic treatment of puppies and older dogs as a prophylactic measure. Treatment of puppies should start at 2-3 weeks of age. Children should avoid areas where dogs defecate or where whelping has occurred. *Toxocara* eggs are highly resistant to destruction, and contaminated soil may continue to be a source of infection for years. Children should be taught not to eat dirt, to wash their hands, and to clean their fingernails after playing in potentially contaminated areas. Dog owners must not allow their animals to defecate in human areas, particularly children's play areas.

While the characteristic clinical picture of fever, hepatomegaly, bronchial asthma and persistent eosinophilia in a small child is highly suggestive of VLM, the diagnosis can only be confirmed by tissue examination (such as a liver biopsy) which will show granulomata with a typical histo-pathological structure or larvae present in the center. Lesions of the eye may be misdiagnosed as retinoblastoma. Serologic tests are of value, although there is cross-reaction with ascariasis and strongyloidiasis. Diethylcarbamazine or thiabendazole may alleviate symptoms.

*Adapted from CALIFORNIA MORBIDITY: February 25, 1977 Issue.

* GUIDELINES FOR DETECTING CHILDREN WITH AN ELEVATED BLOOD PRESSURE

Blood pressure pattern in children and adolescents differ from those in adults, and the design of hypertension detection programs needs to be modified for young people. The wide variation in blood pressure readings that may occur in adolescents without the presence of sustained hypertension or other detectable disease make the blood pressure readings on a single occasion unreliable for identifying subjects with hypertension. Ideally, blood pressure measurements for children and adolescents should be a part of total health care, where prolonged follow-up can be assured.

The Task Force does not recommend that mass community high blood pressure programs be instituted for children and adolescents for the following reasons:

1. There is potential psychological damage from falsely labeling an adolescent as hypertensive.
2. The required resources of the community could be better spent on a more cost-effective aspect of high blood pressure control because of the low prevalence of fixed hypertension in this age group.

Periodic blood pressure determinations (once each year), associated with a history and physical examination, should be provided for all children over 3 years old, and not only for those individuals whose blood pressures are elevated at the initial examination. The primary physician, observing a child for a number of years, has a unique opportunity to provide continuity of care. In routine preventive health examinations in the practitioner's office, blood pressures should be taken and recorded on all children after the age of 3. Examinations for episodic diseases offer an opportunity to include preventive health care. Physicians and others can be most effective in educating the family and emphasizing the necessity for follow-up services. In addition to the primary care physician, there are other mechanisms for providing continuing health care: maternal and child health programs; the Early Periodic Screening, Detection, and Treatment Program (EPSDT); and school health programs.

The school setting meets several criteria for establishing a blood pressure examination program as part of a total continuing health program. The availability of a relatively stable population that can be followed up over a period of years is of primary importance. The expanding discrepancy between the notion of what a school health program should provide and the percentage of health and community funds currently being appropriated to them precluded some school systems from meeting other criteria necessary for establishing an effective blood pressure screening program. In general, high blood pressure detection and referral programs should be considered only for school systems with health facilities and personnel already involved in activities such as immunization programs, nutrition, audiometric and visual screening, school health examinations, or other kinds of single or multiple screening programs.

Prior to establishing a continuing blood pressure program in such a school setting, the Task Force recommends the following steps:

1. Meet with the superintendent, principals, teachers, parent groups, medical community, and student body to outline a screening program, answer questions, and solicit cooperation.
2. Develop educational materials for individuals and for display.
3. Establish procedures for mailing results to family physicians of students whose families have private physicians.
4. Establish links with a physician or a low-cost or no-cost follow-up clinic.

5. Develop appropriate referral literature and forms to facilitate prompt and appropriate referral procedures.

6. Avoid labeling children as hypertensive as a result of a screening.

*Source: Report of the Task Force on Blood Pressure Control in Children

State Department of Health and
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Preventive Health Services Bureau
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Address Correction Requested



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Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

JULY, 1977

This Month

Reported to Date

Disease

1977

1976

1975

1977

1976

1975

Aseptic Meningitis	0	1	0	1	4	2
Brucellosis	0	1	0	1	1	0
Chicken Pox	23	27	20	530	808	681
Colorado Tick Fever	3	2	4	5	17	6
Encephalitis, Primary	0	0	2	0	1	7
Encephalitis, Post-Infectious	0	0	0	0	0	1
Hepatitis, Infectious (A)	23	5	26	83	43	138
Hepatitis, Serum (B)	2	1	3	11	11	18
Hepatitis, Unspecified	1	1	2	18	10	28
Influenza-Like Disease	97	22	34	876	4862	2696
Measles (Rubeola)	9	1	8	1061	196	49
Meningococcal Disease	0	1	0	3	3	6
Mumps	2	0	9	7	13	23
Rocky Mountain Spotted Fever	1	0	1	3	0	2
Rubella	0	2	1	12	232	245
Salmonella Infections	1	9	3	15	48	29
Shigella Infections	0	0	6	5	27	47
Streptococcal Pharyngitis	199	187	195	2347	1974	2642
Tuberculosis (New Cases)	4	5	17	26	33	35
Venereal Disease						
Gonorrhea	202	168	117	1091	1088	1197
Syphilis, Prim. & Sec.	1	0	0	4	5	4
Whooping Cough Syndrome	0	1	2	1	4	3
Rabies in Animals	5	0	8	31	55	104

OTHER REPORTABLE DISEASES:

Botulism	0	0	0	0	1	0
Encephalitis, Unspecified	0	0	0	0	0	1
Infectious Mononucleosis	1	3	8	7	13	134
Meningitis, Other Bacterial	1	0	0	9	0	2
Rheumatic Fever	0	0	0	1	0	1
Salmonella, Non-infectious	1	0	0	2	1	0
Tetanus	1	0	0	1	0	0
Tularemia	0	0	0	1	1	1

H COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarlat. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead								1								
Big Horn		1		4	1		2					10	1			
Blaine				4								41				
Broodwater																
Carbon							4					1				
Carter																
Cascade		3		29	10	1	1	1		2		34				
Chouteau							75									
Custer		2		2								5				
Daniels																
Dowson		8														
Deer Lodge				3			14					25				
Fallon																
Fergus				1												1
Flothead				6												
Gallatin				25								12				
Gorfield																
Groclier				8	6			1				27			1	
Golden Valley																
Granite																
Hill				9												1
Jefferson																
Judith Basin																
Loke				2	1			1								1
Lewis & Clark				13	1								1			
Liberty				1												
Lincoln																
McCone																
Modoc																
Meagher																
Mineral																
Missoula				20	2	1		5								
Musselshell				2												
Park																
Petroleum																
Phillips																1
Pondera															1	
Powder River																
Powell												21				
Prairie												2				
Ravalli				3												
Richland													1			
Roosevelt		7		11			1								1	
Rosebud				13												
Sanders																
Sheridan																
Silver Bow				7	1										1	
Stillwater		2		1								1				
Sweet Grass																
Teton												12				
Toole				1												
Treasure																
Valley				3								7				
Wheatland																
Wibaux																1
Yellowstone				34	1							1				
TOTAL	0	23	0	202	23	2	97	9	0	2	0	199	3	0	4	5



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Department of Health and Environmental Sciences STATE OF MONTANA HELENA, MONTANA 59601

EPIDEMIOLOGIC NOTES AND COMMENTS 'THE TICK TELEGRAPH'

July, August, 1977

We would like to alert physicians to a few communicable disease problems of current interest in the state.

I. RABIES.

Summer seems to be the period of most frequent potential rabies exposure presumably because more people spend more time outdoors. In the last month or so the Bureau of Preventive Health Services has been informed or consulted about several possible exposures to rabid animals each week. A total of 9 people have received human rabies immune globulin supplied through this office as part of their rabies immune prophylaxis program since mid-August. Six people in Richland County were exposed to a rabid skunk; a boy in Ravalli County was exposed to a bat proved to be rabid by fluorescent antibody testing of the bat's brain at the Rocky Mountain Laboratory; and one person each in Sanders and Missoula Counties were exposed to bats that were not tested.

Here are a few points to keep in mind about rabies:

- 1) Rabies in rodents or rabbits is so rare that many State Laboratories will not even test animals submitted for rabies testing. Rabies prophylaxis is almost never needed for bites from these animals.
- 2) All bats which bite people should be assumed to be rabid if not captured and tested.
- 3) Skunk rabies is common in most areas of Montana east of the Divide, and is steadily moving westward toward the Divide year by year.
- 4) The Preventive Health Services Bureau is always available for consultation in suspected rabies exposure cases. The Bureau keeps on hand a small supply of Human Rabies Immune Globulin which is available on an emergency basis when supplies are not available locally.

If you have a suspected rabies exposure, PLEASE:

- 1) Take a good history, including the behavior of the exposed individual and that of the animal.
- 2) Cleanse the wound thoroughly with soap and water and an antiseptic agent.
- 3) If you have any doubt about how to proceed, call the Preventive Health Services Bureau at 449-2645 or Dr. Glosser, chief of the Veterinary Disease Control Bureau at 449-2043.
- 4) If prophylaxis is indicated, give Human Rabies Immune Globulin at the start of treatment, one-half the dose infiltrated locally into and around the wound and one-half parenterally. The dose is 20 IU/kg--most adults will need 10cc of globulin. At the same time the 21-day course of duck embryo vaccine should be started.
- 5) Draw a serum sample for determination of rabies antibody response at the end of the 21-day course, but in any case proceed with booster doses of the vaccine on the 10th and 20th days after the end of the primary vaccine series.

II. MEASLES

School is starting, and measles season will be with us again soon, after a short quiet period this summer. One case was identified in early August in a one-year-old on the Blackfoot Indian Reservation. A small outbreak of possible measles occurred in Richland County during August. Containment efforts have begun with the active support of local public health personnel in an effort to interrupt transmission before school starts. The index case apparently acquired his infection in North Dakota, which has had continuing cases during much of the summer.

Containment of measles in a community is feasible -- it was accomplished effectively in several Montana communities this last year -- but is much easier and requires much less time of public health personnel and of practitioners when it can be begun early, when only one or two cases are present in a community. Measles vaccination can prevent measles infection in a susceptible individual if given within 48 hours of exposure. It is not necessary to wait for serologic confirmation of measles to report cases; they should be reported as soon as the first case is seen. There is a toll-free line into the Bureau of Preventive Health Services: 1-800-332-2288.

III. WESTERN EQUINE ENCEPHALITIS.

Encephalitis-like activity in horses in Montana, which was very extensive in mid-August, is now tapering off, according to Dr. James Glosser of the Veterinary Disease Control Bureau. Presumptive cases in horses reported as of August 17 were as follows (an asterix indicates that serologic evidence of illness due to Western Equine Encephalitis was found in that county.)

Beaverhead	0	Dawson*	4	Ravalli*	1
Big Horn	25	Fergus	5	Richland	12
Blaine	2	Madison	2	Roosevelt*	2
Carbon*	5	Missoula	0	Valley	12
Custer	10	Phillips	7	Yellowstone*	8 or more
Daniels*	1				

There have been two confirmed cases of Western Equine Encephalitis in man in North Dakota; several possible cases are being investigated. There have been three cases in man in the city of Winnipeg but no reported activity in Saskatchewan. A Flathead County, Montana, man had an illness in July which started with GI symptoms and headache and progressed to neck stiffness and stupor. He is now recovering. His illness occurred in the context of a community outbreak of illness characterized by GI symptoms and headache. The WEE titer rise by complement fixation from less than 1:8 to 1:16. The clinical picture and epidemiological setting, the low titer rise, the early date, and the location in the western part of the state (where encephalitis activity in horses has not been prominent) all make the diagnosis of WEE hard to make with certainty. A 21-year-old Valley County woman had a WEE titer rise from less than 1:8 to 1:16 and a compatible illness. We are calling both presumptive cases.

During the season for WEE-- which may continue for some weeks if warm weather continues--physicians are asked to keep a high index of suspicion for WEE in cases of aseptic meningitis or encephalitis. Please:

- 1) think of the diagnosis.
- 2) Report cases of encephalitis and aseptic meningitis promptly, either on a confidential case card or by calling the Bureau of Preventive Health Services at 449-2645 or our hotline number, 800-332-2288.
- 3) Send paired sera, two weeks apart, to the State Microbiology Laboratory for confirmation in suspected cases.
- 4) A stool specimen should be submitted to the State Microbiology Laboratory for virus isolation to rule out an enterovirus as the cause of the illness.

IV. GIARDIASIS.

The Missoula City-County Health Department has reported that several smoke jumpers based in Missoula have returned from Alaska with an illness clinically compatible with giardiasis and *Giardia lamblia* in their stools. Physicians treating returned fire-fighters are reminded to keep *Giardia* infection in mind. The Bureau of Preventive Health Services would be interested in hearing about clusters of cases of giardiasis. (Contact Dr. Richard Hopkins at 449-2645.) If stool examinations for giardia are not available in your community, special mailers are available from the State Microbiology Laboratory for submission of specimens.

V. YELLOWSTONE PARK.

August 26, 1977

MORBIDITY AND MORTALITY WEEKLY REPORT

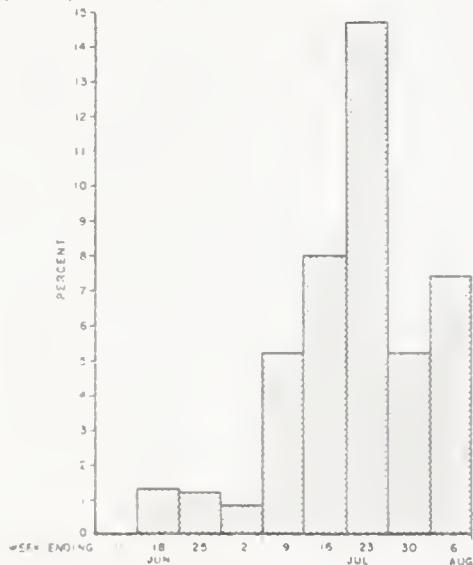
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Epidemiologic Notes and Reports

Gastroenteritis — Yellowstone National Park, Wyoming

An outbreak of mild gastroenteritis presumed to be viral in etiology began early in July in Yellowstone National Park. The center of the outbreak was Canyon Village, a small, centrally located town in the park which provides lodging accommodations, campsites, and eating facilities for tourists. A survey by CDC on August 6 of Canyon Village employees revealed an attack rate of 32% since June 1, with a peak attack rate of nearly 15% for the week ending July 23 (Figure 1). The disease was characterized by the acute onset of vomiting or diarrhea, which lasted approximately 24 hours.

FIGURE 1. Attack rate of gastroenteritis in Canyon Village employees, by week, June-August, 1977



In Lake Village, 17 miles south of Canyon Village, and Old Faithful Village, 42 miles west of Canyon Village, outbreaks also occurred in July; overall attack rates for these 2 villages were approximately 15%. In Lake Village the peak occurred during the week ending July 30, when the attack rate was 3.7%.

Initially, investigation suggested a common-source outbreak temporally associated with the use of a secondary water source. The primary water source for Canyon Village is Soda Creek, a small mountain stream. When it is not sufficient, Cascade Creek, an unprotected surface water source which originates at Cascade Lake and runs approximately 4 miles to a small reservoir, is used as an auxiliary water source. Because of inadequate rain this summer, Cascade Creek has been used intermittently every day since June 29, except for 2 days — July 24-25 — when there was adequate rainfall. These 2 days occurred in the week ending

July 30, which had a decrease in the attack rate for Canyon Village (Figure 1).

Among employees in Canyon Village, those who drank an average of more than 5 glasses of water per day were at a significantly higher risk of contracting gastroenteritis than those who drank 2 glasses or less ($p < 0.05$). Furthermore, employees who boiled their water were at significantly less risk of having gastroenteritis than those who drank water without boiling it ($p < 0.05$). Among visitors to Yellowstone Park surveyed on August 8, those who visited Canyon Village and drank more than 2 glasses of water per day while in the park were at significantly higher risk of having gastroenteritis than those who did not drink this much water or visit Canyon Village ($p < 0.001$).

Fluorescent dye studies to determine if there are any cross connections between the sewage and water supplies are underway.

Although water was the probable source of some cases, other factors suggested person-to-person transmission for many cases in the 3 villages. Social intermingling among employees in these villages is commonplace, and surveys in Canyon Village documented that roommates of persons ill with gastroenteritis were at a significantly higher risk of becoming ill than roommates of well persons ($p < 0.001$). Among Park Service personnel, individuals residing in dormitories were at a significantly higher risk than those residing in trailers or apartments ($p < 0.01$), suggesting that person-to-person spread was occurring, particularly in areas of community living.

On August 12, the Canyon Village water supply was chlorinated to a free chlorine residual of 1 ppm. A memorandum was issued to all park employees advising them of the problem and urging them, if ill with vomiting, diarrhea, or nausea, to report such illness to the Yellowstone Medical Service. Ongoing surveillance was also established with a questionnaire for each person identified by the clinic as having compatible symptoms. On August 18 cases were still occurring, and the Park Service was advised by CDC to avoid using Cascade Creek water for human consumption. On August 20 a temporary water system utilizing the Yellowstone River was established to be used by Canyon Village for the rest of this season. It was also recommended that a meeting be held later this summer to develop plans to correct deficiencies in the Canyon Village water supply before the opening of the park next spring.

Reported by M Smith, MD, Yellowstone Medical Service; MD Skinner, MD, State Epidemiologist, Montana State Dept of Health and Environmental Sciences; and Enteric and Neurotropic Diseases Br, Viral Diseases Div, CDC.

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Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

STATE DOCUMENTS

SEP 25 77

MORBIDITY REPORT

AUGUST, 1977

This Month

Reported to Date

Disease

1977

1976

1975

1977

1976

1975

Disease	1977	1976	1975	1977	1976	1975
Aseptic Meningitis	1	0	0	2	4	2
Brucellosis	1	0	0	1	1	0
Chicken Pox	24	19	40	554	1827	733
Colorado Tick Fever	0	2	0	5	19	6
Encephalitis, Primary	1	0	2	1	1	9
Encephalitis, Post-Infectious	0	0	0	0	0	1
Hepatitis, Infectious (A)	9	10	16	92	53	154
Hepatitis, Serum (B)	0	0	1	11	11	19
Hepatitis, Unspecified	2	0	5	20	10	33
Influenza-Like Disease	81	152	30	957	2856	4892
Measles (Rubeola)	5	2	0	1066	198	49
Meningococcal Disease	0	0	0	3	3	6
Mumps	0	1	2	7	14	25
Rocky Mountain Spotted Fever	3	1	3	6	1	5
Rubella	0	1	0	12	233	245
Salmonella Infections	5	2	4	20	50	33
Shigella Infections	2	3	4	7	30	51
Streptococcal Pharyngitis	278	272	182	2744	2246	2854
Tuberculosis (New Cases)	1	3	5	33	36	40
Venereal Disease						
Gonorrhea	222	223	222	1313	1311	1419
Syphilis, Prim. & Sec.	0	1	0	4	6	4
Whooping Cough Syndrome	0	0	4	1	4	11
Rabies in Animals	0	13	11	33	68	143

OTHER REPORTABLE DISEASES:

Botulism	0	0	0	0	1	0
Encephalitis, unspecified	1	0	0	1	0	1
Infectious Mononucleosis	0	0	0	7	13	0
Malaria	1	0	0	1	0	0
Menigitis, bacterial other	0	0	0	9	0	2
Rhuematic Fever	0	0	1	1	0	2
Salmonella, non-infectious	0	0	0	2	1	0
Tetanus	0	0	0	1	0	0
Tularemia	0	0	0	1	0	1
Diptheria	0	0	1	0	0	1

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COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarlat. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		8		11			8					16				
Blaine		1		4								93				
Broadwater																
Carbon																
Carter																
Cascade		9		30	4			2				15	1		1	
Chouteau							39									
Custer				1												
Daniels		3		4								5				
Dawson				1									1		1	
Deer Lodge					1		11					30				
Fallon																
Fergus																
Flathead				3												
Gallatin		2		15			4					21				
Garfield																
Glacier		1		19	4							37			1	
Golden Valley																
Granite																
Hill				3			1									
Jefferson				1												
Judith Basin																
Lake				9												
Lewis & Clark				12												
Liberty				3			18					4				
Lincoln																
McCone				1												
Madison																
Meagher																
Mineral												8				
Missoula				21											1	
Musselshell															1	
Park																
Petroleum																
Phillips																
Pondera																
Powder River				1												
Powell																
Prairie																
Ravalli				3									1			
Richland				1				3								
Roosevelt				9												
Rosebud				2												
Sanders															1	
Sheridan	1															
Silver Bow				9											1	
Stillwater																
Sweet Grass																
Teton												40				
Toole				1												
Treasure												1				
Valley				4								7				
Wheatland												1				
Wibaux																
Yellowstone				54									2	2		
TOTAL	1	24	0	222	9	0	81	5	0	0	0	278	5	2	7	0



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Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

MORBIDITY REPORT

September, 1977

This Month

Reported to Date

Disease

1977

1976

1975

1977.

1976

1975

Aseptic Meningitis	0	1	0	3	5	2
Brucellosis	1	0	0	1	1	0
Chicken Pox	24	12	36	567	839	766
Colorado Tick Fever	0	0	1	5	19	7
Encephalitis, Primary	0	0	4	2	1	13
Encephalitis, Post-Infectious	0	0	1	0	0	2
Hepatitis, Infectious (A)	23	2	28	113	55	182
Hepatitis, Serum (B)	4	3	2	15	14	21
Hepatitis, Unspecified	7	4	3	25	14	36
Influenza-Like Disease	93	54	121	1008	4946	2975
Measles (Rubeola)	6	4	0	1071	202	49
Meningococcal Disease	1	1	0	3	4	6
Mumps	0	0	4	7	14	29
Rocky Mountain Spotted Fever	1	0	0	6	1	5
Rubella	0	1	0	12	234	245
Salmonella Infections	8	3	9	24	53	42
Shigella Infections	1	1	0	8	31	51
Streptococcal Pharyngitis	262	264	160	2853	2510	2980
Tuberculosis (New Cases)	4	4	6	37	40	46
Venereal Disease						
Gonorrhea	214	195	208	1563	1506	1627
Syphilis, Prim. & Sec.	0	2	0	5	9	4
Whooping Cough Syndrome	0	0	1	1	0	4
Rabies in Animals	12	3	2	45	71	143

OTHER REPORTABLE DISEASES:

Botulism	0	0	0	0	1	0
Diphtheria	0	0	0	0	0	1
Encephalitis, Unspecified	0	0	0	1	0	1
Infectious Mononucleosis	0	0	0	7	13	0
Malaria	0	0	0	1	0	0
Meningitis, bacterial other	0	1	0	9	1	2
Rheumatic fever	0	0	0	1	0	2
Salmonella, non-infectious	1	0	0	3	1	0
Tetanus	0	0	0	1	0	0
Tularemia	0	0	0	1	0	1
Toxoplasmosis	0	0	0	0	1	0
Amebiasis	1	0	0	1	0	0

H COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles*	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarl. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn		2		10			15					18				
Bloine		1		8				1				52				
Broadwater																
Carbon																
Carter																
Cascade		10		36	4		1	1				46	3			
Chouteau							54									
Custer				2												1
Daniels		3		4				1				5				
Dawson				1	6			1								
Deer Lodge					2							40				
Fallon																
Fergus				1												
Flathead				4												
Gallatin		2		12			4					13				
Gorfield																
Glacier				27	4							20				
Golden Valley																
Granite																
Hill				1	1	1						5				1
Jefferson				1												
Judith Basin																1
Lake				6								1				
Lewis & Clark		4		3												
Liberty				1			15									
Lincoln																1
McCone				1												1
Modoc																
Meagher																
Mineral							4					3				
Missoula				30		2									2	1
Musselshell																
Park																
Petroleum																
Phillips																
Pandora																3
Powder River																
Powell						1						23				
Prairie																
Ravalli				3									1	1		
Richland																2
Roosevelt				10												
Rosebud				7	5			1				1				
Sanders				1	1											
Sheridan		2							1							
Silver Bow				5												
Stillwater												2				
Sweet Grass																
Teton												22				
Toole				2												
Treasure																
Valley				3								11				
Wheatland																
Wibaux																
Yellowstone				35				1				4			2	1
TOTAL	0	24	0	214	21	4	93	6	1	0	0	253	8	1	4	12

*Cases not recorded in the first six months of 1977.



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EPIDEMIOLOGIC NOTES AND COMMENTS 'THE TICK TELEGRAPH'

SEPTEMBER, 1977

We would like to share with our Montana colleagues a summary of CDC's Influenza Vaccine Recommendations for this influenza season, and two pieces on aspects of measles control. (There were over 1000 cases of measles in Montana in the first six months of 1977.)

I. INFLUENZA VACCINE.

The following is adapted from the Recommendations of the Public Health Service Advisory Committee on Immunization Practices, published in MMWR, Vol. 26 #24, June 17, 1977. NOTE: Influenza vaccine will not be available thru the Preventive Health Services Bureau this year.

Thousands of persons have died of influenza in epidemics in the United States in the past 20 years. In the 1957-58 influenza season, when a new influenza A virus (Asian strain) appeared, nearly 70,000 deaths were attributed to it in this country alone. In 1968-69, when the Hong Kong variant caused widespread epidemics in the United States, there were an estimated 33,000 excess deaths. In the intervening years, whenever influenza A epidemics have involved most of the country, 10,000 to 20,000 excess deaths resulted.

Efforts to prevent or control influenza in the United States usually have been aimed at protecting those at the greatest risk of becoming seriously ill or dying. Repeated observations during influenza epidemics have indicated that deaths occur primarily among chronically ill adults and children and in older persons, especially those over age 65. These "high-risk" persons should be vaccinated annually regardless of the amount of influenza in their geographic areas. INFLUENZA VIRUS VACCINE FOR 1977-78

Bivalent influenza vaccine for 1977-78 will contain inactivated influenza A and B viruses representative of currently prevalent strains. Each adult dose of vaccine will contain 400 chick cell agglutinating (CCA) units of antigen or its equivalent in the following proportion: 200 CCA units of influenza A virus comparable to the prototype A/Victoria/3/75 (H3N2) and 200 CCA units of B/Hong Kong/5/72 influenza virus.

The 1977-78 vaccine will be available in "split-virus" and "whole-virus" preparations. Split-virus vaccines, which contain antigens produced by chemically disrupting the influenza virus, have been associated with somewhat fewer side effects than whole-virus vaccines, particularly in children. However, the split-virus vaccines appear to be somewhat less effective in eliciting antibodies when given as a single dose to persons who have not been "primed" by exposure to related viruses in nature or through vaccination.

The characteristic side effects and immunogenicity of split-virus and whole-virus influenza vaccines are important in understanding dosage recommendations for various age groups. Adults and older children, most of whom have had experience with influenza antigens related to A/Victoria/3/75 or B/Hong Kong/5/72 either by infection or through vaccination, can be expected to have a good antibody response to a single dose of the 1977-78 bivalent influenza vaccine. Children less than

6 years of age, some of whom have not encountered the currently prevalent viruses, will need 2 doses of vaccine given 4 or more weeks apart in order to achieve satisfactory antibody responses. These children will not be adequately protected unless the second dose is given. Furthermore, because children and adolescents tend to experience somewhat more side effects from influenza vaccine than adults, only split-virus vaccines should be given to persons less than 18 years of age.

VACCINE USAGE

GENERAL RECOMMENDATIONS

Annual vaccination is strongly recommended for adults and children of all ages who have such chronic conditions as: 1) heart disease of any etiology, particularly with mitral stenosis or cardiac insufficiency, 2) chronic bronchopulmonary diseases, such as chronic bronchitis, bronchiectasis, tuberculosis, emphysema, and cystic fibrosis, 3) chronic renal disease, and 4) diabetes mellitus and other chronic metabolic disorders.

Vaccination is also recommended for older persons, particularly those over age 65 years, because excess mortality in influenza outbreaks occurs in this age group.

Vaccination may also be considered for persons who provide essential community services and may be at increased risk of exposure. Vaccination of such persons and of patients not specified in the high-risk groups should be made on an individual basis giving consideration to the inherent benefits, risks, and costs.

The accompanying table summarizes vaccine and dosage recommendations by age group for 1977-78. These recommendations are derived from observations made during the field trials of influenza vaccines conducted in 1976. Because information from the immunization of infants and young children is limited, the dosages recommended for them are conservative.

TABLE 1. Influenza vaccine dosage by age, 1977-78

Age	Product Type	Dose Volume (ml)	Total CCA Units*	Number of Doses
18 years and older	Whole-virus or Split-virus	0.5	400	1
6-17 years	Split-virus	0.5	400	1
3-5 years	Split-virus	0.25	200	2**
6-35 months	Split-virus	0.15	120	2**

*Representing equal amounts of A/Victoria/75 and B/Hong Kong/72.

**4 weeks or more between doses; both doses essential for good protection.

SIDE EFFECTS AND ADVERSE REACTIONS

Side effects of influenza vaccine occur infrequently. Three types of responses to influenza vaccines have been described:

1. Fever, malaise, myalgia, and other systemic systemic of toxicity starting 6-12 hours after vaccination and persisting 1-2 days. These responses to influenza vaccine constitute most of the side effects of influenza vaccination. Such effects occur most frequently in children and others who have had no experience with influenza viruses comparable to the vaccine antigen(s).
2. Immediate- presumably allergic -responses, such as flare and wheal or various respiratory expressions of hypersensitivity. These reactions are exceedingly uncommon but can occur after influenza vaccination. They probably derive from exquisite sensitivity to some vaccine component, most likely residual egg protein. Individuals with known or suspected hypersensitivity to eggs should be given influenza vaccine only under the care and close observation of a physician

3. Guillain-Barré syndrome, usually a self-limited paralysis, is observed within 8 weeks after influenza vaccination in approximately 10 of every million persons vaccinated. It also occurs, but less frequently, in unvaccinated persons. Prior to the intensive surveillance of influenza vaccine that occurred during the swine influenza vaccination program in 1976, serious adverse reactions, such as this syndrome, to influenza vaccines had been virtually unrecognized. While the risk is not high, persons who receive influenza vaccine should be aware of it and should recognize that 5-10% of persons with the Guillain-Barré syndrome have residual weakness to some degree and approximately 5% of them die.

II. MEASLES OUTBREAK CONTROL

The following comments are adapted from Recommendations of the Public Health Service Advisory Committee on Immunization Practices, published in MMWR, Sept. 9, 1977.

The number of measles cases reported in 1976 and 1977 increased nationwide to the highest levels since 1971. In Montana there were 520 cases in 1976 and 1022 cases in the first half of 1977. Much of the increase resulted from many localized measles outbreaks, many in school-age populations, particularly among 10-19 year olds in communities believed to have high immunity levels.

All official health jurisdictions should take whatever steps are necessary to assure that all children entering school are protected against measles. Thereafter, if measles occurs in the community, it is strongly recommended that prompt actions be taken to assure that all susceptible school children and others at risk are immunized.

Susceptibles to measles should be defined as persons who lack:

- (1) physician's certification or other acceptable evidence of having had measles, or
- (2) certification of adequate immunization with live measles vaccine when 12 or more months of age.

The following persons cannot be considered adequately protected and should be revaccinated:

- (1) children previously vaccinated with live measles vaccine before they were 12 months of age
- (2) children who received live, further attenuated vaccine (Schwarz^R or Moraten^R strains), along with immune serum globulin (ISG), regardless of age at time of vaccination.
- (3) persons previously vaccinated with killed measles vaccine
- (4) persons previously vaccinated with live measles vaccine within 3 months after receiving killed measles vaccine.

Speed in implementing measles control programs is essential to prevent measles spread. In some situations, vaccination records might be retrievable only with extensive time delays. In such cases, it is better to revaccinate children whose immunity status is in doubt than to delay while record searches are being made.

One effective means of achieving high immunity levels quickly that has been used in controlling measles outbreaks is to exclude from school all children who cannot present valid evidence of vaccination or prior disease. This practice has been continued until 2-3 weeks after the last case of measles occurs in the community.

VACCINATION AGE

- 1) Infants age 6-11 months should be vaccinated within 48 hours of exposure to natural measles. They should be revaccinated at age 15 months to ensure solid and lasting immunity.
- 2) Infants under 1 year of age, exposed to measles, who were not vaccinated within 48 hours should be given Immune Serum Globulin.
- 3) Effective epidemic control may require vaccination of susceptible high school and college-age persons as well as preschool and young school-age children.
- 4) The vast majority of those vaccinated when 12 months old are fully protected against measles. They do not need to be revaccinated.

REVACCINATION RISKS

There is no enhanced risk from giving live measles vaccine to children who have previously received live measles vaccines or who have had measles. Specifically there does not appear to be any enhanced risk of subacute sclerosing panencephalitis (SSPE), a recognized complication of natural measles.

Reactions such as local induration, edema, and fever have been observed when live measles vaccine has been administered to persons who previously received inactivated measles vaccine. Despite this risk of reaction, children previously vaccinated with inactivated vaccine should be reimmunized with live vaccine.

PASSIVE IMMUNIZATION AGAINST MEASLES

ISG should not be used to control measles outbreaks. There is no evidence that measles vaccine given to persons already incubating measles results in more severe illness or complications.

ISG should be used for exposed pregnant women, for persons for whom measles vaccine is contraindicated, such as the immune deficient, or for infants whose measles exposure is recognized too late to give measles vaccine.

IMMUNIZATION OF WOMEN OF CHILDBEARING AGE

In measles epidemic control programs, precautions against giving live virus vaccines in pregnancy, based on theoretical risks, do not justify laboratory screening for pregnancy among women of childbearing age. Of far greater importance is protection of all susceptibles at risk by vaccination against measles. Theoretical risks from inadvertently vaccinating women who are unaware they are pregnant are greatly outweighed by the known risks of measles disease to which these women might be exposed.

III. MEASLES OUTBREAK CONTROL.

Allegan County, Michigan

Between August 11 and November 12, 1975, 66 cases of measles were reported from a predominantly rural township in southwestern Michigan. The initial cases occurred that summer in 4 related preschool children. Shortly after the opening of school in early September, measles was introduced into the public school, and there was a rapid increase in the number of cases, making documentation of transmission from person-to-person difficult. Forty-one cases (62%) were in students in kindergarten through grade 5, 11 (17%) in preschool children, 9 (14%) in junior high school students, and 5 (7%) in senior high school students.

A school-based immunization clinic was conducted on October 3, 1975. Forms for obtaining parents' permission for the children to participate in the program were sent home with all students. Within grades 1-5, 489 (70%) of 695 pupils returned the forms, and 199 (28%) of these requested vaccination against measles. Since only an estimated 10%-15% of the students in these grades were susceptible, this was initially considered to be an excellent response.

To assess the success of the program in reaching the susceptible population, investigators reviewed the school health records and identified 74 children in grades 1-5 (11%) as susceptibles (i.e., students with no record of having had measles vaccination or disease). Of these, on 15 (20%) were vaccinated at the school clinic. According to health records, 184 (92%) of the 199 children vaccinated at the clinic were already immune.

This incident illustrates that a sustained outbreak may occur despite a population's apparently high immunization level (e.g., 89% in grades 1-5 on the basis of record review). Measles transmission by preschoolers to their extended family members was an important factor in maintaining measles within the community during the summer months. Had effective control measures been implemented during the low transmission season, the school outbreak might have been prevented. The vaccination clinic appeared to have had little effect on the course of the outbreak. Traditional school-based programs usually will not reach the "hard-to-reach". There is a general assumption that the more vaccine distributed, the better the control program. This outbreak demonstrates that dose distribution is a very crude measure

and often may be misleading. Only by determining the percentage of susceptibles reached during immunization activities, as well as carefully monitoring morbidity, can one obtain a true assessment of measles control.

Center for Disease Control: Measles Surveillance Report No. 10,
1973-1976, Issued July 1977.

ANNOUNCEMENT

The Bureau of Preventive Health Services now has a 24-hour answering service on its telephone, at 449-2645. Callers will be directed to one of several professional staff members who will be available for consultation.

Take-home messages:

- 1) We do recommend influenza vaccination of high-risk groups this year. The available vaccine has equal parts of A/Victoria and B/Hong Kong antigen.
 - 2) Effective measles control requires rapid response to the first cases in a community, with identification of susceptibles, vaccination of susceptible contacts, and administration of gamma globulin to young susceptible household contacts of measles cases.
-

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ARTHUR C. KNIGHT M.D.
DIRECTOR



Department of Health and Environmental Sciences

STATE OF MONTANA HELENA, MONTANA 59601

Vol. #1

Issue #2

"MONTANA MORBIDITY REPORT"

NOV 16 77

October, 1977

This Month

Reported to Date

Disease

1977

1976

1975

1977 -

1976

1975

Aseptic Meningitis	1	0	0	4	5	2
Brucellosis	0	0	0	1	1	0
Chicken Pox	43	17	16	610	861	1138
Colorado Tick Fever	0	1	0	5	19	6
Encephalitis, Primary	0	0	1	2	1	2
Encephalitis, Post-Infectious	0	0	0	0	0	1
Hepatitis, Infectious (A)	13	6	20	126	58	334
Hepatitis, Serum (B)	0	1	2	15	15	24
Hepatitis, Unspecified	1	3	2	26	17	8
Influenza-Like Disease	102	100	106	1110	5057	1808
Measles (Rubeola)	0	58	0	1071	260	283
Meningococcal Disease	2	1	0	5	5	2
Mumps	2	0	7	9	15	160
Rocky Mountain Spotted Fever	0	0	0	6	1	1
Rubella	2	0	1	14	234	26
Salmonella Infections	2	2	2	26	62	46
Shigella Infections	2	4	3	10	35	323
Streptococcal Pharyngitis	432	314	198	3285	2871	3468
Tuberculosis (New Cases)	0	0	6	37	38	73
Venereal Disease						
Gonorrhea	177	166	175	1740	1748	1672
Syphilis, Prim. & Sec.	1	4	2	6	12	4
Whooping Cough Syndrome	0	0	0	1	1	0
Rabies in Animals	0	11	0	45	91	26

OTHER REPORTABLE DISEASES:

Infectious Mononucleosis	2	1	0	9	14	1
Malaria	1	0	0	2	0	0

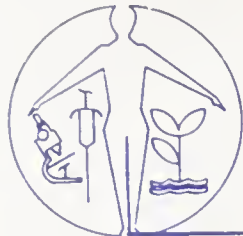
MONTANA MONTHLY MORBIDITY REPORT, October, 1977; Vol.1-2. Published monthly by The Preventive Health Services Bureau of the Department of Health and Environmental Sciences, Helena, MT 59601. Distr. FREE to physicians, public health nurses, sanitarians, hospital administrators. Application to mail at Second-Class Postage Rate is pending at Helena, MT.

October 1977

COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarl. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn				1			5					20				
Blaine				2								77		2		
Broadwater												1				
Carbon																
Carter																
Cascade	1	20		28	3		9				1	72	2			
Chouteau							40									
Custer		4		1								20				
Daniels																
Dawson																
Deer Lodge				2	1		9					60				
Fallon																
Fergus																
Flathead				6												
Gallatin		8		1			4		1			64				
Gorfield																
Glacier				16	1				1	1	1	30				
Golden Valley																
Granite																
Hill				5								40				
Jefferson				1												
Judith Basin																
Lake				6								1				
Lewis & Clark				10												
Liberty		4					2					5				
Lincoln		1														
McCone																
Madison																
Meagher							14					28				
Mineral				5			12					3				
Missoula				29	1											
Musselshell																
Park																
Petroleum				2												
Phillips																
Pondera																
Powder River					1											
Powell																
Prairie																
Ravalli		2		2												
Richland				1												
Roosevelt		1		8								1				
Rosebud					5		1					5				
Sanders																
Sheridan		2														
Silver Bow				5												
Stillwater																
Sweet Grass																
Teton																
Toole		1					6									
Treasure																
Valley				3								4				
Wheatland												1				
Wibaux																
Yellowstone				43	1				1							
TOTAL	1	43	0	177	13	0	102	0	2	2	2	432	2	2	0	0

1 case of Malaria in Glacier County



Department of Health and Environmental Sciences
STATE OF MONTANA HELENA, MONTANA 59601

EPIDEMIOLOGIC NOTES AND COMMENTS
'THE TICK TELEGRAPH'

October, 1977

ANNOUNCEMENT

The Bureau of Preventive Health Services now has a 24-hour answering service on its telephone, at 449-2645. Callers will be directed to one of several professional staff members who will be available for consultation.

MALARIA IN MONTANA

Two cases of malaria have been reported in Montana in the last three months.

The first, reported by Dr. Ronald H. Smith of Billings, was in a 56-year-old engineer who had recently been on an extensive worldwide trip. He had most recently been in Nigeria, in West Africa for several weeks. He took no chemoprophylaxis for malaria. He was admitted to Deaconess Hospital August 5, when he presented to the emergency room with complaints of chills, fever, general malaise, and a fever 104° without other physical findings. A blood smear showed Plasmodium falciparum. He was treated with chloroquine and responded promptly.

The second case was in a 27-year-old man from Cut Bank, a Seventh Day Adventist missionary who had just returned from Sri Lanka (Ceylon). He took no malarial prophylaxis while in Ceylon. In June, 1977, while in Ceylon, he had a febrile illness diagnosed (without a blood smear) as malaria and treated with quinine. On 10/12/77 he was seen by Dr. James Markette, of Cut Bank, with fever and chills and a temperature of 104°, and hospitalized. His blood smear was positive for malarial forms, most likely Plasmodium vivax. He was treated with three days of chloroquine plus 14 days of primaquine and has responded well.

These two cases point up the importance of chemoprophylaxis for malaria.

If you are consulted by a patient about to undertake foreign travel, it is important, in addition to providing necessary immunizations, to

- 1) Ask in detail where the patient is going.
- 2) Look up if any of the proposed itinerary is in areas where malaria transmission occurs. The best source is "Health Information for International Travel 1977," a book put out as a supplement to MMWR and available from CDC, Atlanta. It contains both a map and a detailed list.
- 3) If travel will be to an endemic area, start the patient on 500mg chloroquine phosphate (or 300mg base) orally once a week one week before arrival there, continuing for 6 weeks after departure from the endemic area.
- 4) If travel will be to certain areas of Southeast Asia or northern South America, including Panama, where chloroquine resistant Plasmodium falciparum occurs, please consult with us or CDC about the currently recommended schedule for prophylaxis.

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MONTANA MORBIDITY REPORT

Volume: 1 Issue #2
DECEMBER



This Month

Reported to Date

Disease	1977	1976	1975	1977-	1976	1975
Aseptic Meningitis	0	0	0	4	4	2
Brucellosis	0	0	3	4	1	3
Chicken Pox	114	69	112	814	1006	969
Colorado Tick Fever	0	0	0	6	19	8
Encephalitis, Primary	0	0	0	3	2	12
Encephalitis, Post-Infectious	0	0	0	0	0	3
Hepatitis, Infectious (A)	28	18	12	191	61	243
Hepatitis, Serum (B)	1	2	2	29	21	29
Hepatitis, Unspecified	1	6	2	33	28	35
Influenza-Like Disease	120	107	131	1383	5295	3359
Measles (Rubeola)	25	233	0	1177	520	50
Meningococcal Disease	2	0	1	8	6	9
Mumps	1	2	1	15	27	44
Rocky Mountain Spotted Fever	0	0	0	6	1	5
Rubella	0	1	0	17	297	253
Salmonella Infections	1	2	0	40	71	61
Shigella Infections	3	1	10	38	39	85
Streptococcal Pharyngitis	661	481	325	4461	3816	3949
Tuberculosis (New Cases)	7	7	36	58	54	87
Venereal Disease						
Gonorrhea	194	159	131	2169	2072	2173
Syphilis, Prim. & Sec.	0	1	2	8	15	8
Whooping Cough Syndrome	0	0	1	3	4	18
Rabies in Animals	0	1	8	45	93	166

OTHER REPORTABLE DISEASES:

Amebiasis	0	0	0	1	0	0
Botulism	0	0	0	1	1	0
Diphtheria	0	0	2	0	0	6
Encephalitis, Unspec.	0	0	0	0	0	1
Infectious Mononucleosis	11	1	10	29	92	198
Malaria	0	0	0	2	0	1
Meningitis, bacterial, other	0	2	0	8	2	0
Rheumatic fever	2	0	0	4	1	2
Tetanus	0	0	0	1	0	0
Tularemia	0	0	0	1	1	1
Yersinia enterocolitica	1	0	0	1	0	0

H
COUNTIES

	Aseptic Menin.	Chicken Pox	Enceph. Total	Gonorrhea	Hepatitis Inf.	Hepatitis Serum	Flu	Measles	Meningo- coccal Disease	Mumps	Rubella	StrepInf. Scarlat. fev.	Salmon.	Shig.	T.B.	Animal Rabies
Beaverhead																
Big Horn				12	3		3					12				
Blaine				1								67				
Broodwater																
Carbon				2								1				
Carter				1												
Cascade		37		10	1		4			1		50				
Chateau		5		1			35									
Custer												32				
Daniels																
Dawson												1				
Deer Lodge				4			8					75				
Fallon																
Fergus				2												
Flothead				9												
Gallatin		6		7			18	1				92				
Garfield																
Glacier		1		12								49				
Golden Valley																
Granite																
Hill				3								67				
Jefferson				1												
Judith Basin																
Lake		2		3								3				
Lewis & Clark				9								17				
Liberty							12					5				
Lincoln		21		1	5	1						15				
McCone																
Madison																
Meagher																
Mineral				1								17				
Missoula				25									1	3		
Musselshell																
Park				1												
Petroleum																
Phillips																
Pondera																
Powder River																
Powell				1								9				
Prairie																
Ravalli							25					26				
Richland				1					1							
Roosevelt				6								4				
Rosebud		1		17	18											
Sanders																
Sheridan																
Silver Bow		42		12			12		1			36			1	
Stillwater												51				
Sweet Grass																
Teton																
Toole					1		3					4				
Treasure																
Valley				2								17				
Wheatland								24								
Wibaux																
Yellowstone				50												
TOTAL	0	115	0	194	28	1	120	25	2	1	0	650	1	3	1	0

INFLUENZA

A few individual cases of influenza-like disease have been reported, including one in Libby and one in Choteau. An outbreak of influenza-like disease apparently is in progress in Jefferson County. School absenteeism for the week before Christmas and the week after New Year's has not shown a jump.

In the nation, widespread outbreaks of influenza-like illness with increased school absenteeism were reported before Christmas in Wisconsin, New Jersey, Pennsylvania, Tennessee, and Michigan. Viruses resembling both A/Texas/1/77 and A/Victoria/3/75 have been isolated from these outbreaks. There have been no isolations of the new A/USSR/90/77(H₁N₁) strain outside the USSR and Hong Kong.

In the USSR, 75% of isolates are of the new (H₁N₁) strain, and 25% are of A/Texas/77 or A/Victoria/75. Attack rates in the USSR are estimated to be about one-half those of the Asian (1957-8) and Hong Kong (1969-70) epidemics, affecting mostly persons under 20 years of age. Surveillance by CDC of travellers arriving from the USSR and Hong Kong is underway to try to identify introductions of the new virus strain as promptly as possible.

MEASLES

The season's first measles (rubeola) outbreak is underway in high school students in Wheatland County. Measles was introduced by an Army recruit home on leave in early November. Four identifiable generations of cases have occurred in the high school at Harlowton, with 28 cases so far. Several members of sports teams played against other schools while infectious. Active surveillance of these other schools has turned up one case each in Gallatin County (Three Forks) and Cascade County (Belt).

Other schools at risk include Whitehall, both Billings high schools, Fergus High School in Lewistown, and Big Sandy.

Control measures have included active interviewing and immunization of primary and secondary contacts, as well as school-based immunization clinics in several Wheatland County schools.

Please report known or suspected measles cases to your county health officer and to the Preventive Health Services Bureau -- Toll-free number is -- 1-800-332-2288; there is a 24-hour answering service on 449-2645.

POSSIBLE VACCINE-ASSOCIATED POLIOMYELITIS

A single case of acute paralytic disease occurred in Great Falls in September, 1977. The patient was a Navy recruit with a history of recent oral polio vaccine administration. He presented with upper respiratory symptoms followed by acute onset of paraplegia with fever and low back pain. A LP showed lymphocytosis and elevated protein with negative culture. A viral throat swab was negative. He recovered fully in seven days. Investigation revealed that he had received 3 doses of Salk vaccine and 2 of oral polio vaccine in childhood.

The differential diagnosis included Guillain-Barre syndrome, acute vaccine-associated poliomyelitis, and paralytic disease caused by other enteroviruses (most likely Coxsackie type A7). The clinical picture, with rapid recovery, and the immune history make the third the most likely.

Although poliomyelitis was in the differential diagnosis, neither the local nor state health department was ever notified of the possibility of poliomyelitis by the private physicians caring for the patient or the hospital he was admitted to (notification was through the armed forces medical system).

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HEPATITIS

A large outbreak of hepatitis A, spread person-to-person and involving mostly pre-school children, appears to be tapering off on the Northern Cheyenne reservation.

Clusters of hepatitis cases have recently been reported from Toole, Lincoln, and Flathead Counties.

The December 30 issue of Morbidity and Mortality Weekly Report has a detailed update of prophylaxis for hepatitis A and B.

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